

### **REMARKS**

Applicant respectfully requests reconsideration. Claims 18, 19, 22-36, 51-56, 59 and 64-69 were previously pending in this application with claims 23, 24, 28-30, 34, 36, 55, 56, 59, and 64-69 being withdrawn. Claims 18, 19 and 22 have been amended to clarify the features of the claimed variable region (claims 18, 19) or constant region (claim 22). No new matter has been added.

### **Rejections Under 35 U.S.C. § 112**

The Examiner rejected claims 18, 19, 22, 25-28, 30-36, 51-56 and 59 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicant respectfully requests reconsideration.

The Examiner asserts that this “new matter rejection” especially relates to the following recitations:

- a) “a variable region of a heavy polypeptide chain”
- b) “a fragment of a variable region of a heavy polypeptide chain”
- c) “devoid of normal light chain interaction sites”

The Examiner alleges that some of these recitations are not supported by the priority document. Applicant respectfully disagrees and addresses each of these in turn.

- a) “a variable region of a heavy polypeptide chain”

Although Applicant respectfully disagrees that this recitation is new matter or otherwise is not adequately described in the application as filed, to further prosecution of the claims Applicant has amended claims 18 and 19 by specifying that the variable region of a heavy polypeptide chain is “of an immunoglobulin”. These claim amendments are supported, for example on page 10 (lines 20-32) and page 15 (lines 22-26) of the application as filed. The same

paragraphs are also present in the priority document EP92402326.0 on page 7 (lines 19-30) and on page 11 (lines 27-32).

b) “a fragment of a variable region of a heavy polypeptide chain”

Support for fragments of a variable region can be found on page 15 (lines 22-26) of the application as filed. The same paragraph is also present in the priority document EP92402326.0 on page 11 (lines 27-32).

c) “devoid of normal light chain interaction sites”

Although Applicant respectfully disagrees that this recitation is new matter or otherwise is not adequately described in the application as filed, to further prosecution of the claims Applicant has amended claims 18 and 19 by deleting the recitation “being devoid of normal light chain interaction sites” and introducing the recitation “itself containing an antigen binding site, without contribution of the variable region of a light chain, which is absent.”

Support for this amendment can be found on page 10 (lines 20-32) of the application as filed. The same paragraph is also present in the priority document EP92402326.0 on page 7 (lines 19-30).

Accordingly, withdrawal of the rejection under 35 U.S.C. § 112, first paragraph, is respectfully requested.

**Rejections Under 35 U.S.C. § 102**

1. The Examiner maintained the rejection of claims 22 and 27 under 35 U.S.C. § 102(b) as being anticipated by Ungar-Waron et al. (Isr. J. Vet. Med. 1987, Vol. 43(3), pages 198-203, IDS reference) as evidenced by Hamers-Casterman et al. (Nature 3 June 1993, Vol. 363, pages 446-448, IDS reference), Roux et al. (PNAS USA 1998, Vol. 95, pages 11804-11809, IDS reference), WO 94/25591 (Applicant's IDS reference in the Form-1449 filed 7/24/06), and van der Linden et al. (Biochimica et Biophysica Acta 1999, 1431: 37-46, of record).

Although Applicant does not concede that the rejection of these claims is correct, in order to advance prosecution Applicant has amended claim 22 by specifying that the constant region is from a human antibody. Support for this amendment can be found on page 14 (lines 22-25) of the application as filed. This amendment further differentiates the polypeptides of claims 22 and 27 from the proteins described in Ungar-Waron et al..

Accordingly, withdrawal of the rejection under 35 U.S.C. § 102 is respectfully requested.

2. The Examiner maintained the rejection of claims 22 and 27 under 35 U.S.C. § 102(b) as being anticipated by Grover et al. (Ind. J. Biochem. Biophys. 1983, 20(4): 238-240, IDS reference filed 7/24/06, of record) as evidenced by WO 94/25591 (IDS reference filed 7/24/06) and van der Linden et al. (Biochimica et Biophysica Acta 1999, 1431: 37-46, of record).

Although Applicant does not concede that the rejection of these claims is correct, in order to advance prosecution Applicant has amended claim 22 by specifying that the constant region is from a human antibody. Support for this amendment can be found on page 14 (lines 22-25) of the application as filed. This amendment further differentiates the polypeptides of claims 22 and 27 from the proteins described in Grover et al..

Accordingly, withdrawal of the rejection under 35 U.S.C. § 102 is respectfully requested.

3. The Examiner rejected claims 18, 19, 22, 25-27, 31-33, 35, 51-53, 55 and 59 under 35 U.S.C. § 102(b) as being anticipated by Frenken et al. (J. of Biotechnology, 2000, 78: 11-21, of record).

Applicant respectfully requests reconsideration of this rejection in view of the amendments of the claims and the arguments made above in response to the rejection under 35 U.S.C. § 112, first paragraph. Frenken et al. was published after the priority date of the present

application including the priority document of the present application, and therefore is not prior art to the claimed invention.

Accordingly, withdrawal of the rejection under 35 U.S.C. § 102 is respectfully requested.

4. The Examiner rejected claims 18, 19, 22, 25, 27, 31-34, 35, 51, 53, 55 and 59 under 35 U.S.C. § 102(b) as being anticipated by Lauwereys et al. (The EMBO Journal, 1998, 17(13): 3512-3520, of record).

Applicant respectfully requests reconsideration of this rejection in view of the amendments of the claims and the arguments made above in response to the rejection under 35 U.S.C. § 112, first paragraph. Lauwereys et al. was published after the priority date of the present application including the priority document of the present application, and therefore is not prior art to the claimed invention.

Accordingly, withdrawal of the rejection under 35 U.S.C. § 102 is respectfully requested.

5. The Examiner rejected claims 18, 19, 22, 25-28, 30-36, 51-56 and 59 under 35 U.S.C. § 102(b) as being anticipated by EP 0584421 A1.

Applicant respectfully requests reconsideration of this rejection in view of the amendments of the claims and the arguments made above in response to the rejection under 35 U.S.C. § 112, first paragraph. EP 0584421 A1 was published after the priority date of the present application including the priority document of the present application, and therefore is not prior art to the claimed invention.

Accordingly, withdrawal of the rejection under 35 U.S.C. § 102 is respectfully requested.

6. The Examiner rejected claims 18, 22, 25, 27, 28, 30-35, 51, 53, 54 and 59 under 35 U.S.C. § 102(b) as being anticipated by Cortez-Retamozo et al. (Int. J. Cancer, 2002, 98: 456-462).

Applicant respectfully requests reconsideration of this rejection in view of the amendments of the claims and the arguments made above in response to the rejection under 35 U.S.C. § 112, first paragraph. Cortez-Retamozo et al. was published after the priority date of the present application including the priority document of the present application, and therefore is not prior art to the claimed invention.

Accordingly, withdrawal of the rejection under 35 U.S.C. § 102 is respectfully requested.

#### **Rejections Under 35 U.S.C. § 103**

1. The Examiner rejected claims 18, 19, 33-35 and 51-54 under 35 U.S.C. § 103(a) as being unpatentable over in view of Frenken et al. (J. of Biotechnology, 2000, 78: 11-21, of record) or EP 0584421 A1 in view of Power and Hudson (Expert Opin. Biol. Ther. 2003, 3(2): 385-389).

Applicant respectfully requests reconsideration of this rejection in view of the amendments of the claims and the arguments made above in response to the rejection under 35 U.S.C. § 112, first paragraph. Frenken et al. was published after the priority date of the present application including the priority document of the present application, and therefore is not prior art to the claimed invention.

Accordingly, withdrawal of the rejection under 35 U.S.C. § 103 is respectfully requested.

2. The Examiner rejected claims 18, 33-35, 51, 53 and 54 under 35 U.S.C. § 103(a) as being unpatentable over Lauwereys et al. (The EMBO Journal, 1998, 17(13): 3512-3520, of record) in view of Power and Hudson (Expert Opin. Biol. Ther. 2003, 3(2): 385-389).

Applicant respectfully requests reconsideration of this rejection in view of the amendments of the claims and the arguments made above in response to the rejection under 35 U.S.C. § 112, first paragraph. Lauwereys et al. was published after the priority date of the present application including the priority document of the present application, and therefore is not prior art to the claimed invention.

Accordingly, withdrawal of the rejection under 35 U.S.C. § 103 is respectfully requested.

**CONCLUSION**

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, the Director is hereby authorized to charge any deficiency or credit any overpayment in the fees filed, asserted to be filed or which should have been filed herewith to our Deposit Account No. 23/2825, under Docket No. A0848.70021US08.

Dated: June 23, 2009

Respectfully submitted,  
*Cecile Casterman et al., Applicant*

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